

II. IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 - 14. (Canceled)

15. (Previously Presented) An apparatus for applying thin sections of a tissue sample to a receiving medium comprising:

a blade assembly for slicing thin sections from a tissue sample;

a plurality of transfer rollers sequentially arranged in tangential proximity to each other, such that said thin section in contact with a surface of one transfer roller will be transferred to the surface of the sequentially successive transfer roller;

wherein a first sequential transfer roller of said plurality of transfer rollers is oriented in proximity to said blade assembly so that said thin section sliced from said tissue sample will contact the surface of said first sequential transfer roller;

a receiving medium disposed in tangential proximity to a final sequential transfer roller of said plurality of transfer rollers so that said thin section on the surface of said final sequential transfer roller will be transferred to said receiving medium in a substantially smooth and flat configuration;

a first blade assembly for slicing said tissue sample to expose a working surface; and

a second blade assembly for producing said thin sections.

16. (Previously presented) The apparatus of claim 15, wherein one or more of said first and second blade assemblies comprises:

a blade supply canister for providing a continuous blade of a predetermined length; and

wherein said continuous blade is advanced from said blade supply canister at predetermined intervals.

17 -29. (Canceled)

30. (Previously presented) An apparatus for automatically producing tissue slides from a tissue sample within a sample block:

a holding assembly for manipulating said sample block;

a blade assembly for slicing thin sections from said sample block;

a transfer roller mechanism for transferring said thin section in contact with a surface of a transfer roller to a receiving medium;

a controller; and

an optical imaging system for locating said tissue sample within said sample block;

wherein said controller determines an optimum orientation of said sample block with respect to said blade assembly.

31 -34. (Canceled)

35. (Previously presented) An apparatus for automatically producing tissue slides from a tissue sample within a sample block comprising:

a holding assembly for manipulating said sample block;

a blade assembly for slicing thin sections from said sample block;

a blade supply canister for providing a continuous blade of a predetermined length;

a transfer roller mechanism for transferring said thin section in contact with a surface of a transfer roller to a receiving medium; and

a controller;

wherein said continuous blade is advanced from said blade supply canister at predetermined intervals.